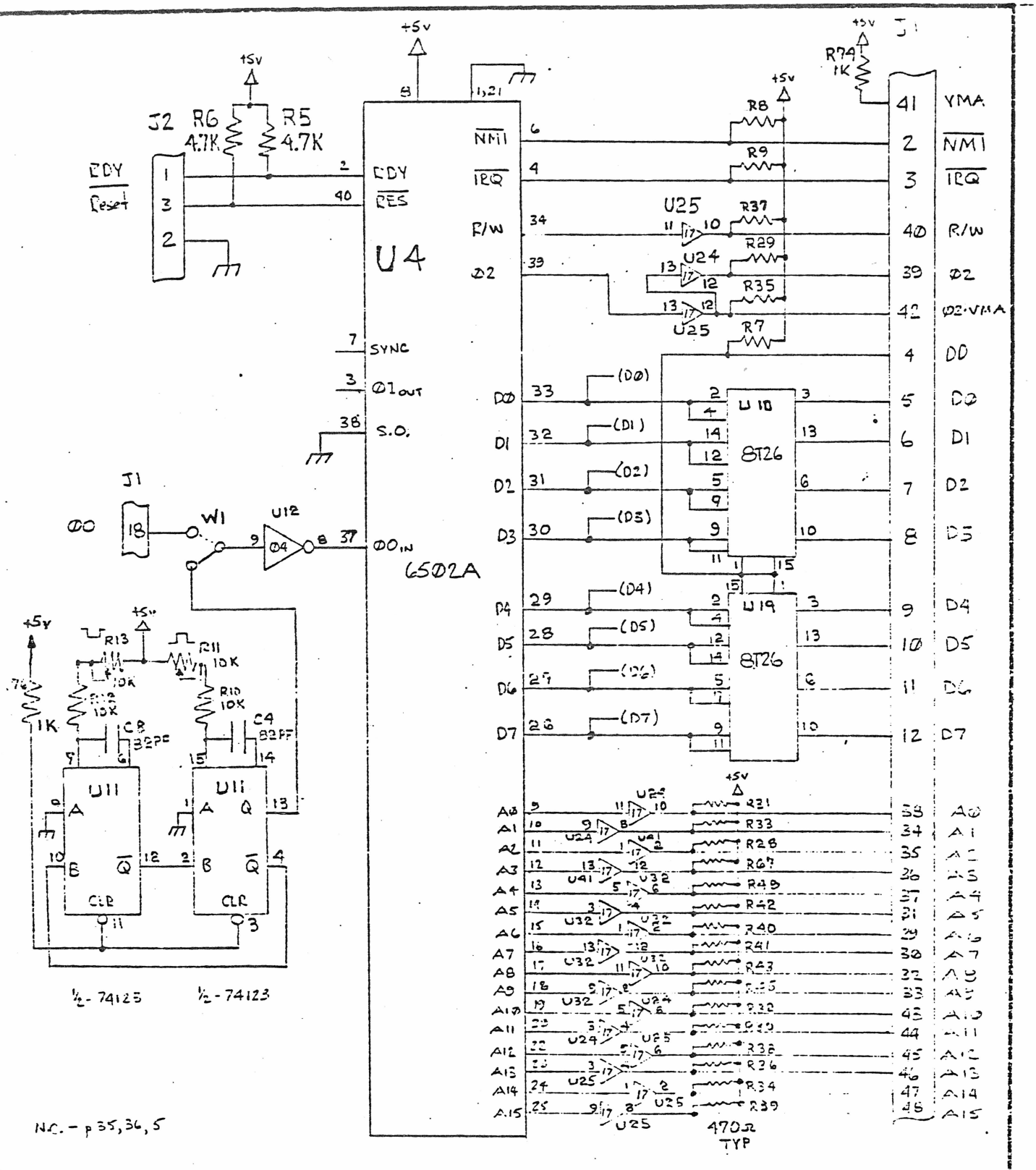
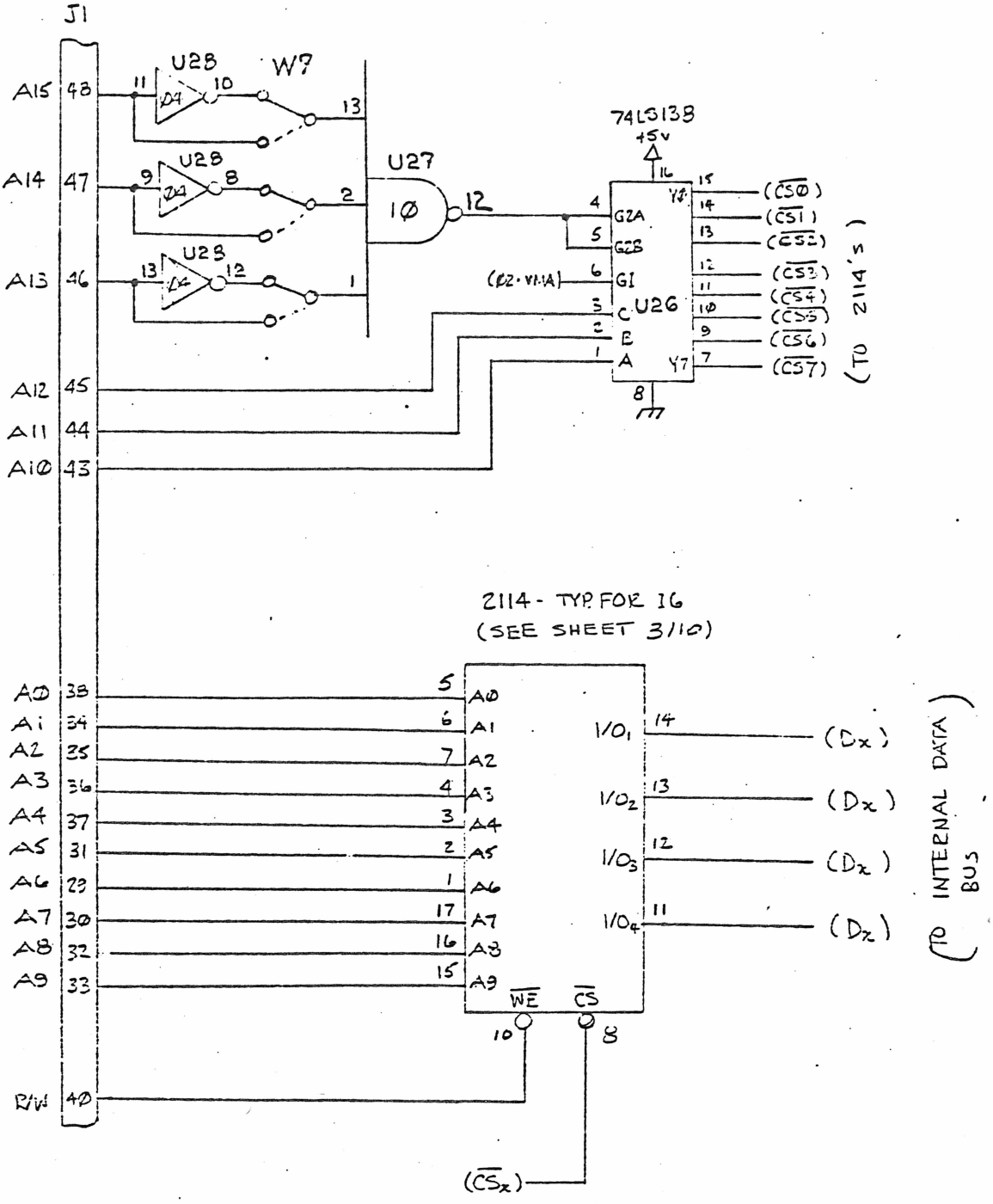
MODEL 502 SCHMATICS

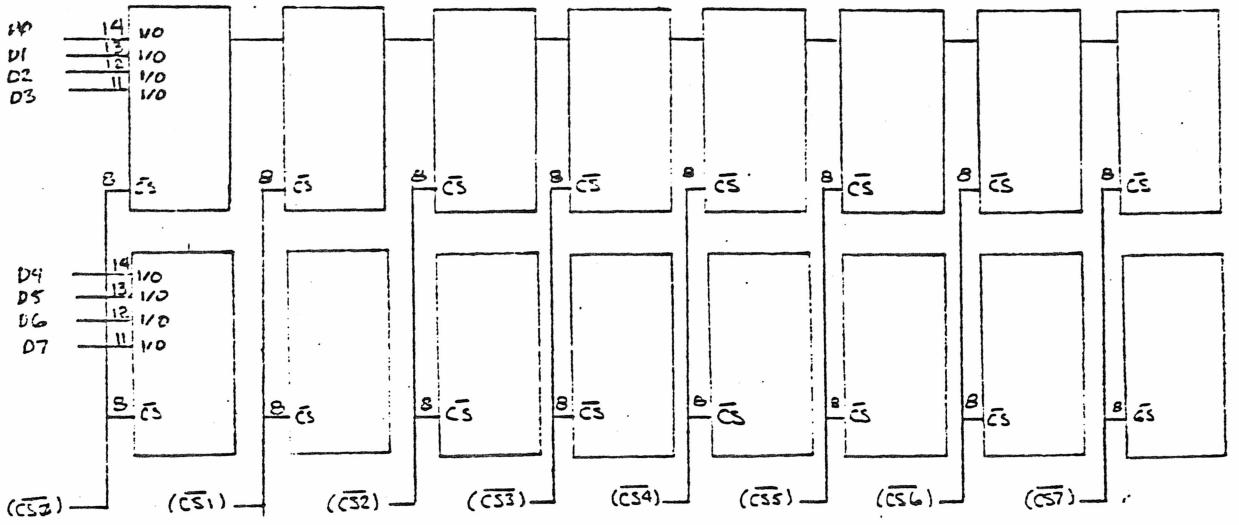
OHIO SCIENTIFIC			product name/number 502 SCHMATICS	
date	revision	page	status	sheet of



OHIO SCIENTIFIC	product name/number MODEL 502- µP AND CLOCK			
date	revision	page	status	sheet 1 of 12

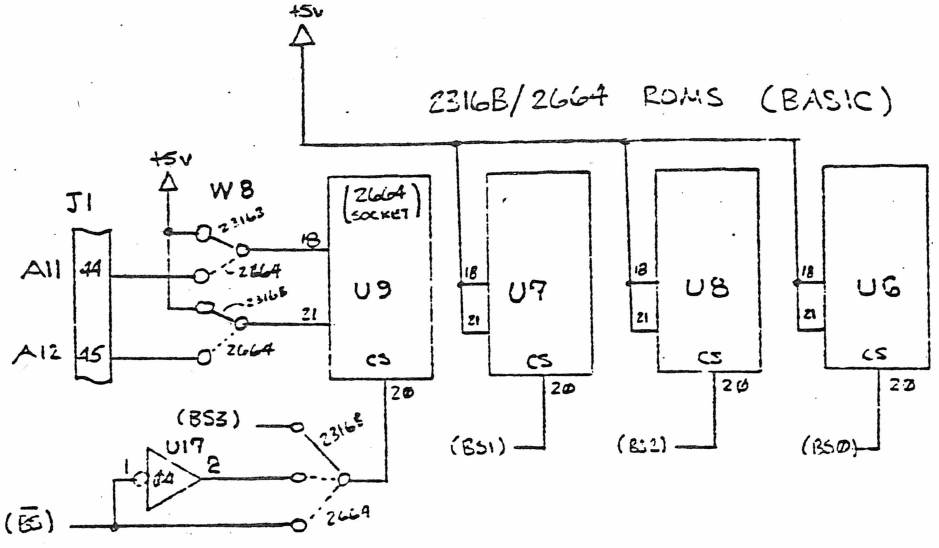


OHIO SCIENTIFIC	product name/number MODEL 502 – (PAM)			
date	revision	page	status	sheet 2 of 12



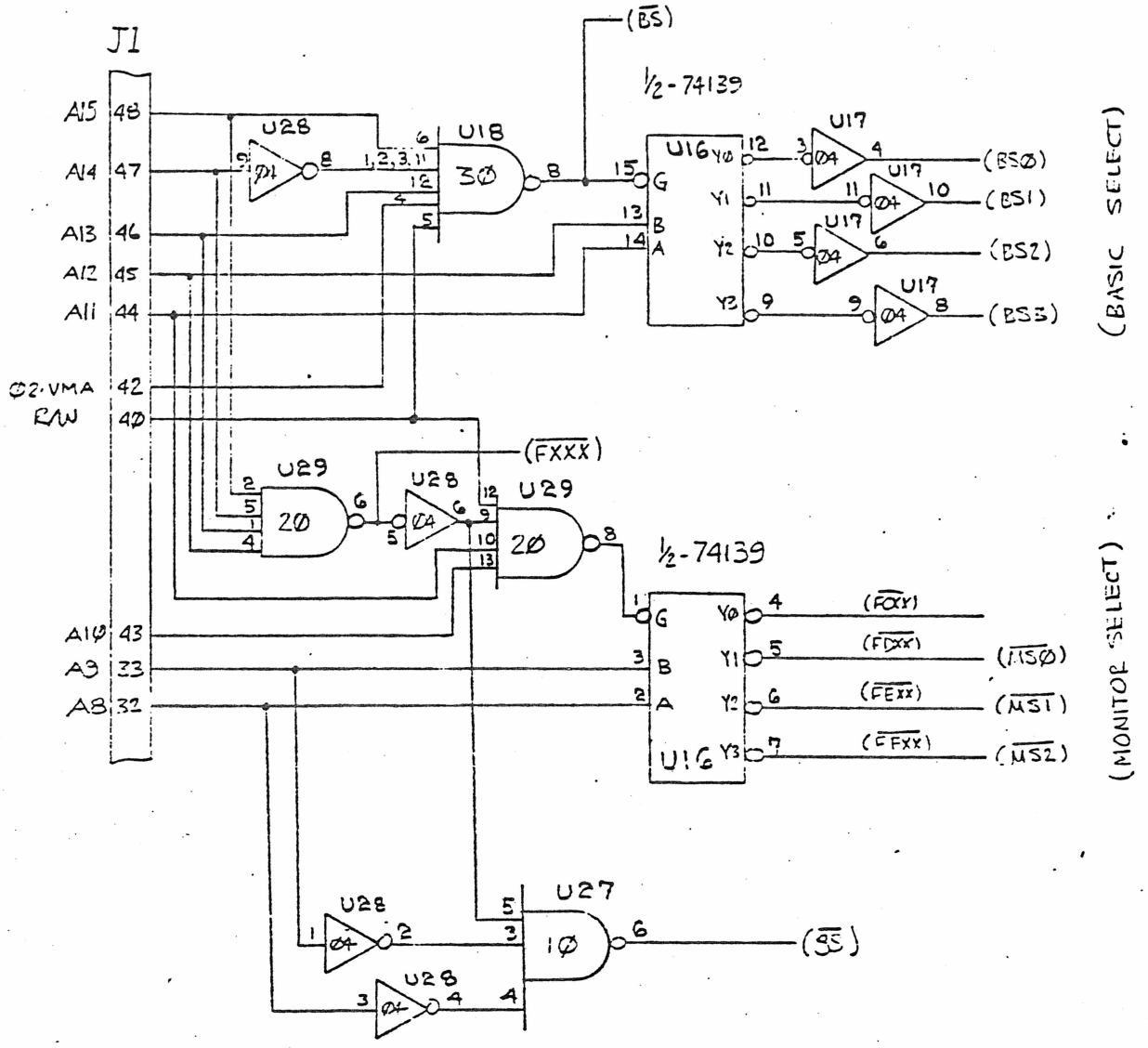
2114 - RAM CHIPS

NOTE - A0-A9 & R/W ARE BUSSED TO ALL CHIPS

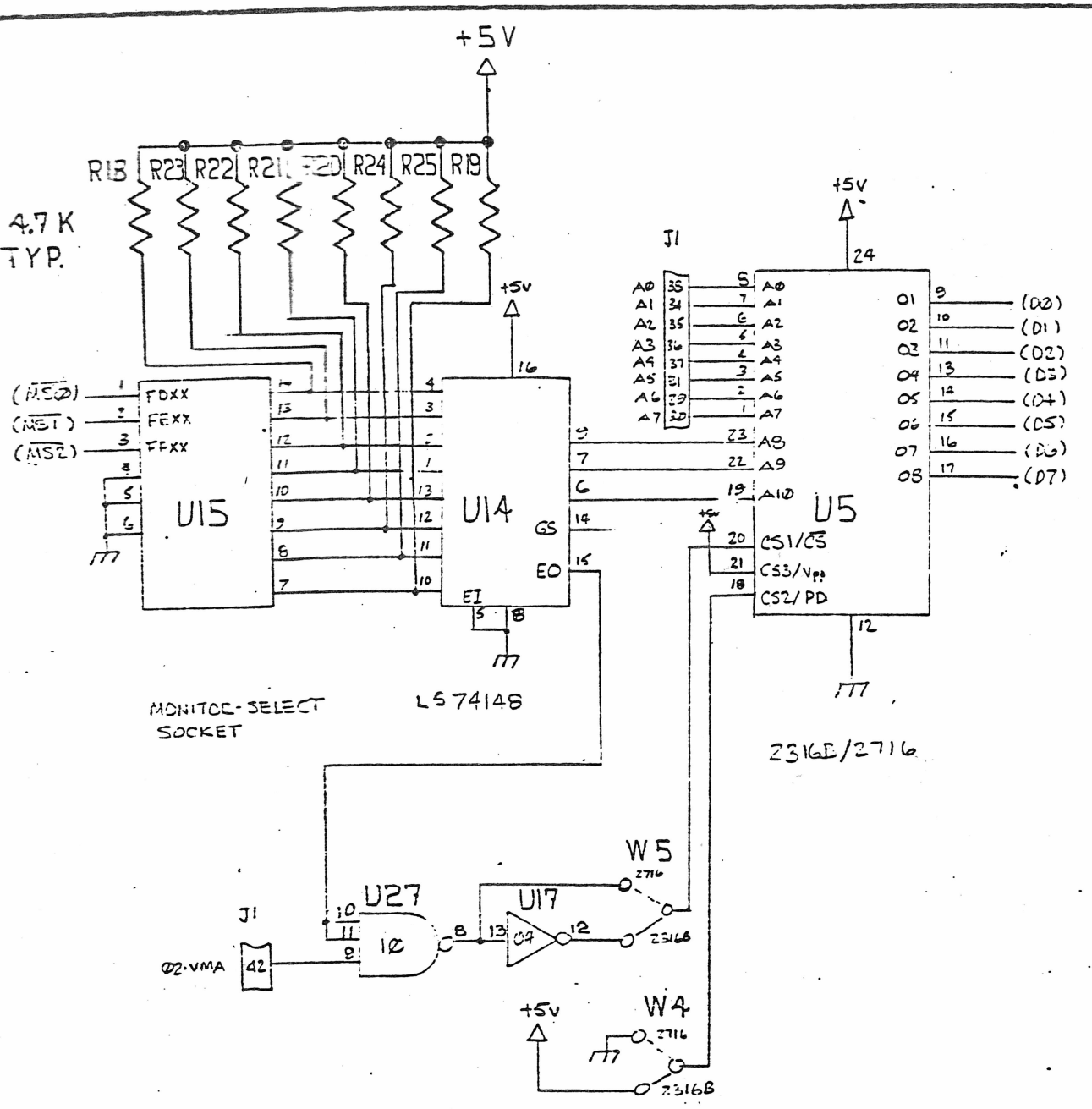


NOTE - ALL OTHER LINES AS ON SHEET 6/10

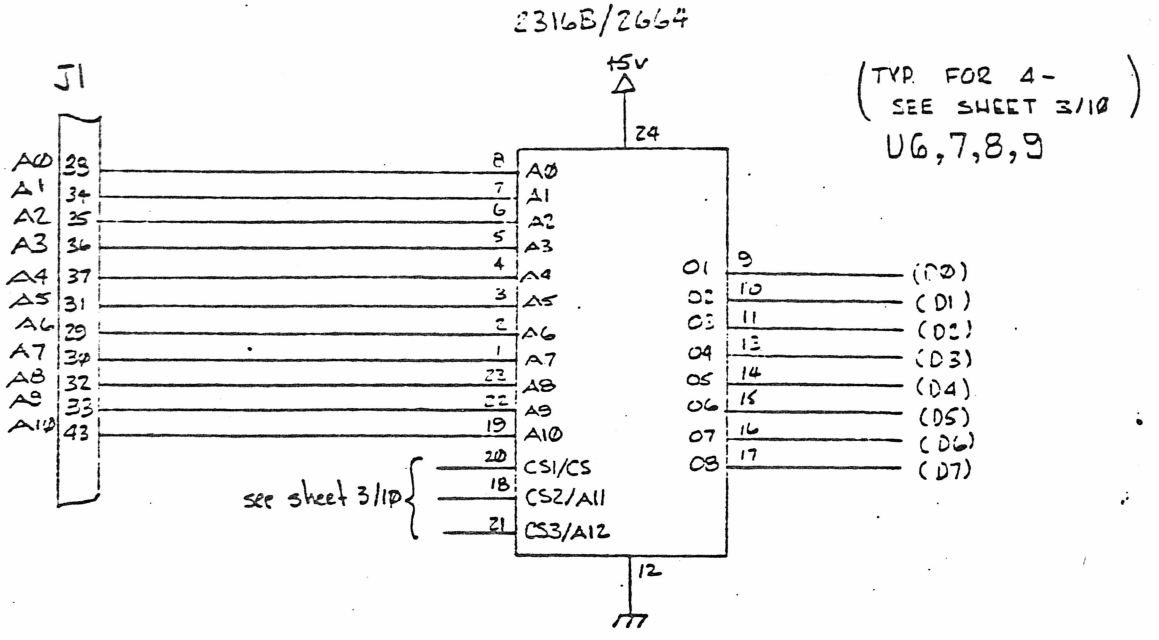
OHIO SCIENTIFIC	product name/number: MODEL 542 - (RAM & ROM AREA)			
date	revision	page	status	sheet 3 of 12



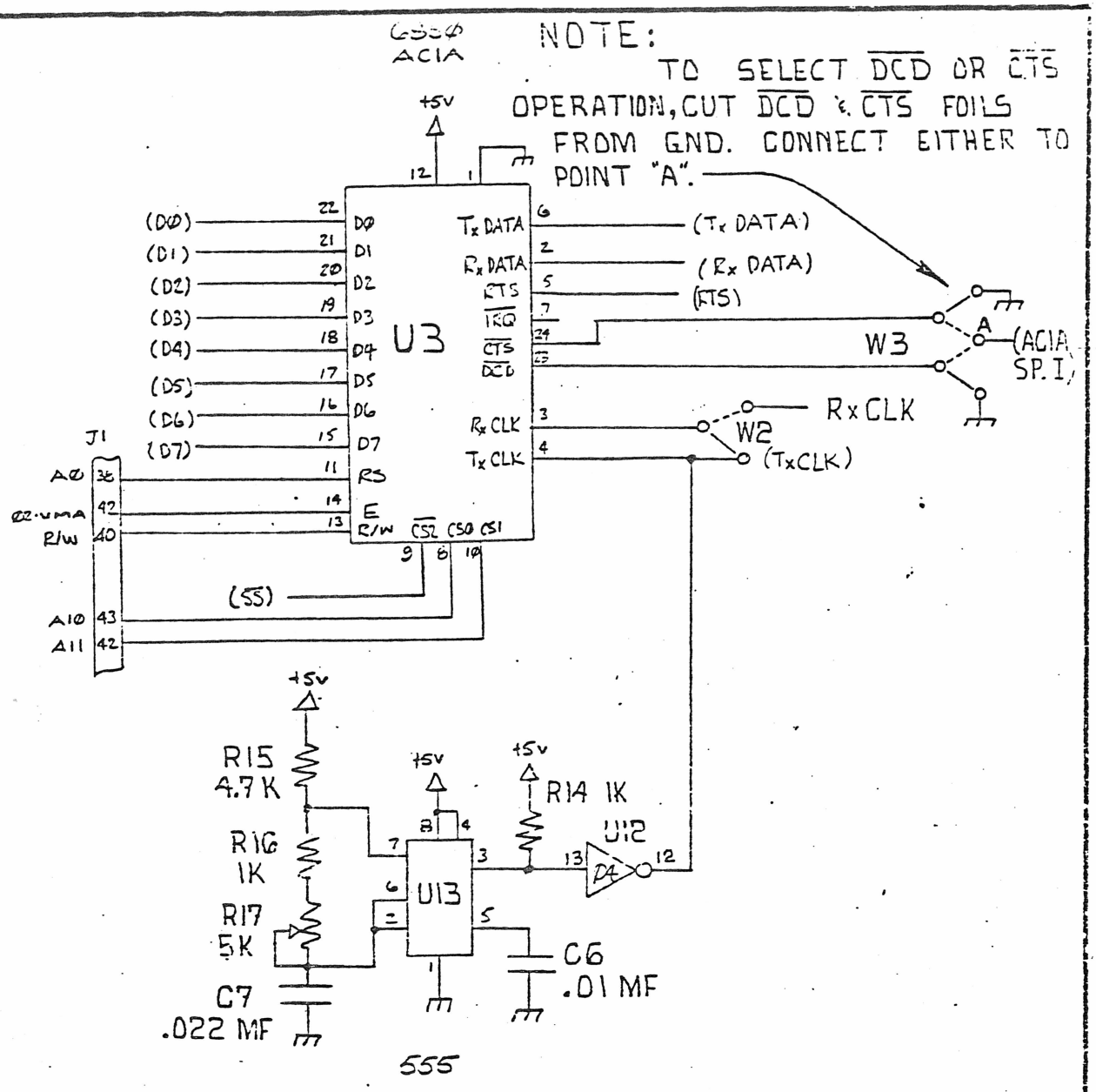
OHIO SCIENTFIC	product name/number MODEL 502 - (ROM ENABLES)			
date	revision	page	status	sheet 4 of 12



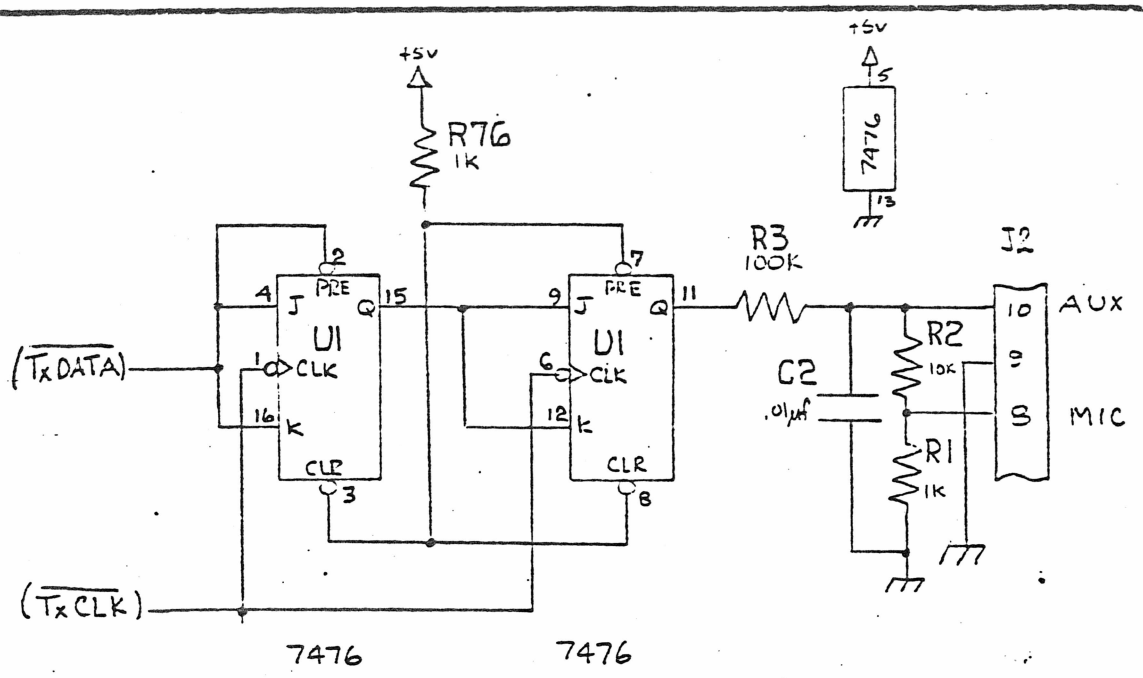
OHIO SCIENTIFIC	product name/number MODEL 502 - (MONITOR ROM)			
date	revision	page	status	sheet 5 of 12



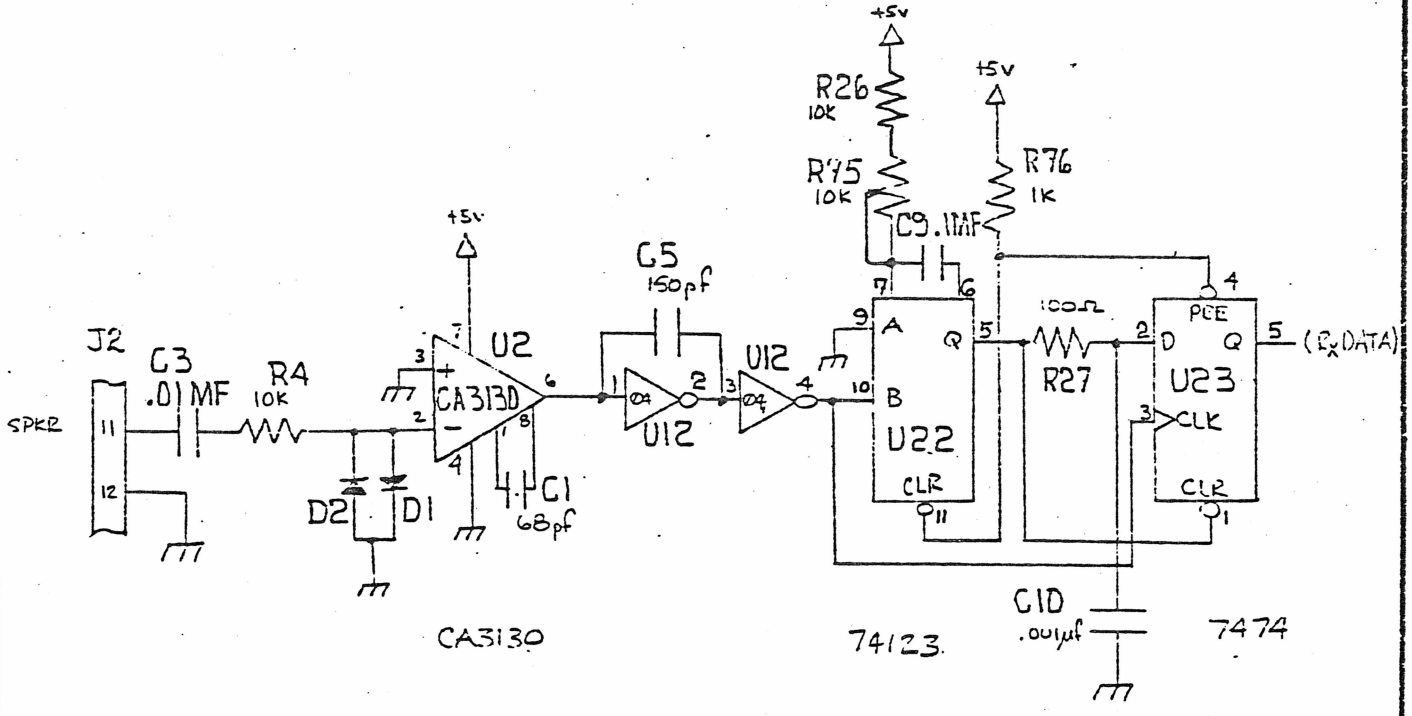
OHIO SCIENTIFIC	product name/number MODEL 502- (BASIC BOARD)			
date	revision	page	status	sheet 6 of 12



OHIO SCIENTIFIC	product name/number MODEL 502 - (AUDIO CASSETTE)			
date	revision	page	status	sheet 7 of 12

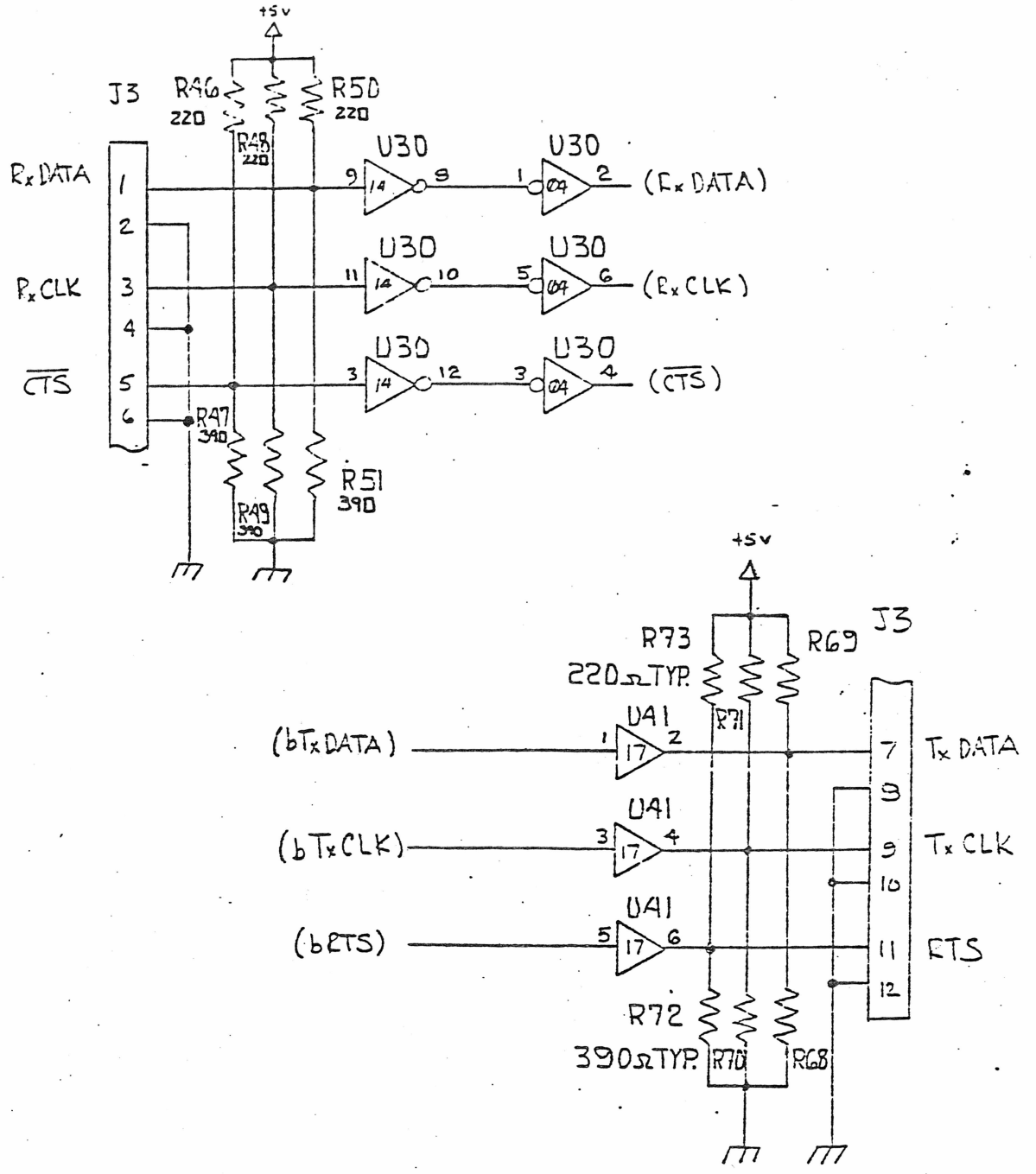


TRANSMITTER



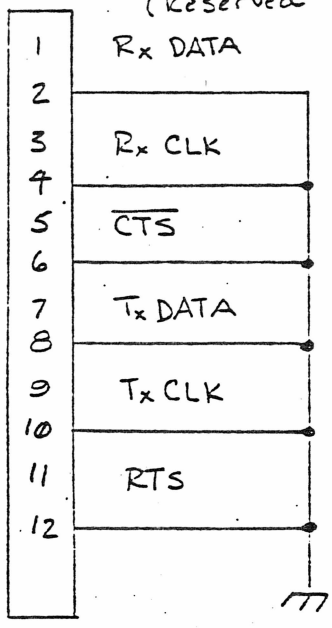
RECEIVER

OHIO SCIENTIFIC			product name/number MODEL 502 - (AUDIO CASSETTE)	
date	revision	page	status	sheet 3 of 12

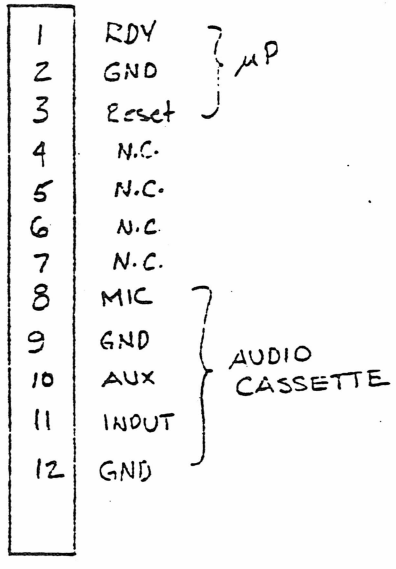


OHIO SCIENTIFIC	product name/number MODEL 502 – (SYNCHRO. INTERFACE)			
date	revision	page	status	sheet 3 of 12

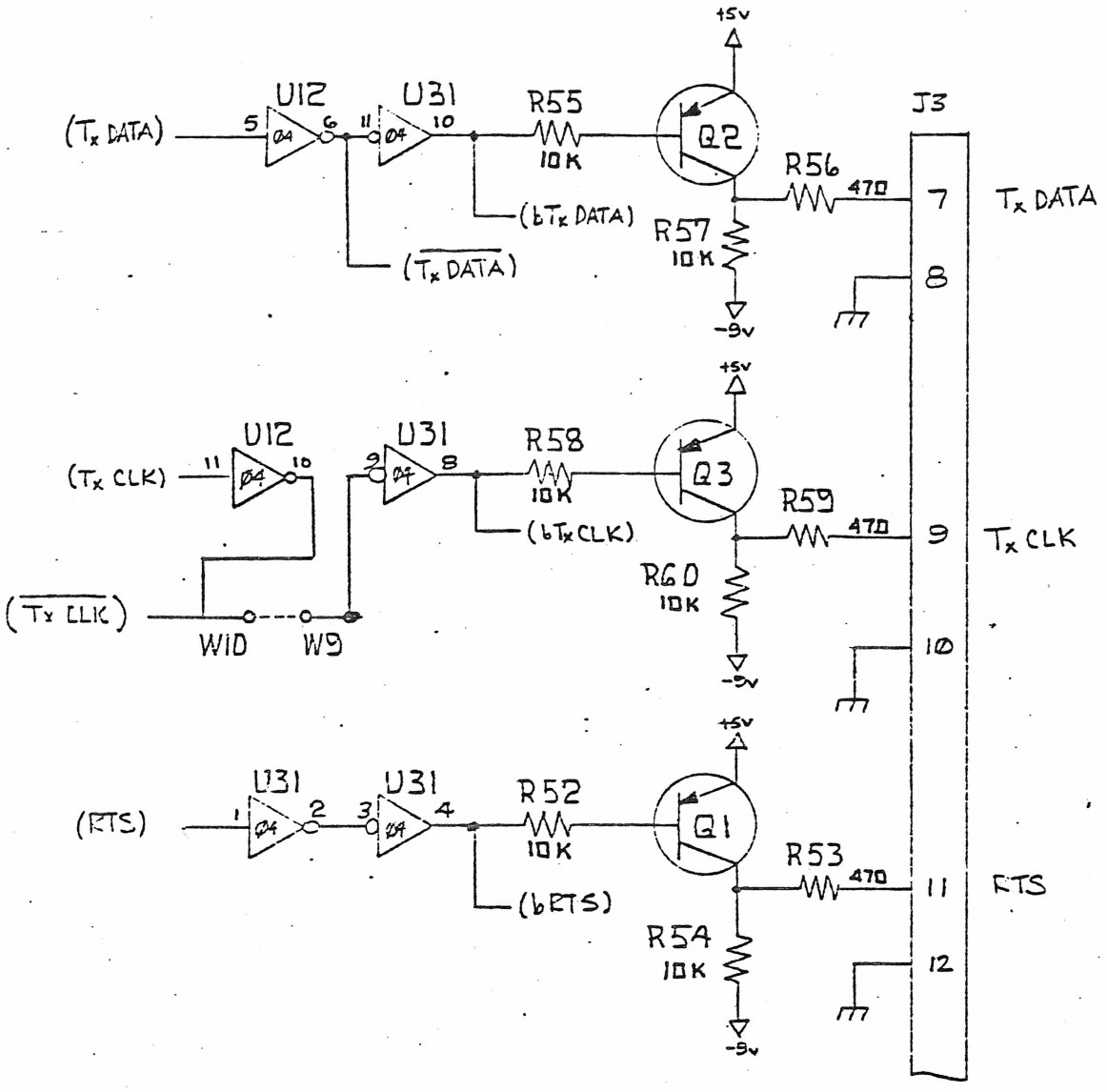
J3 (Reserved for synchronous I/O)



J2

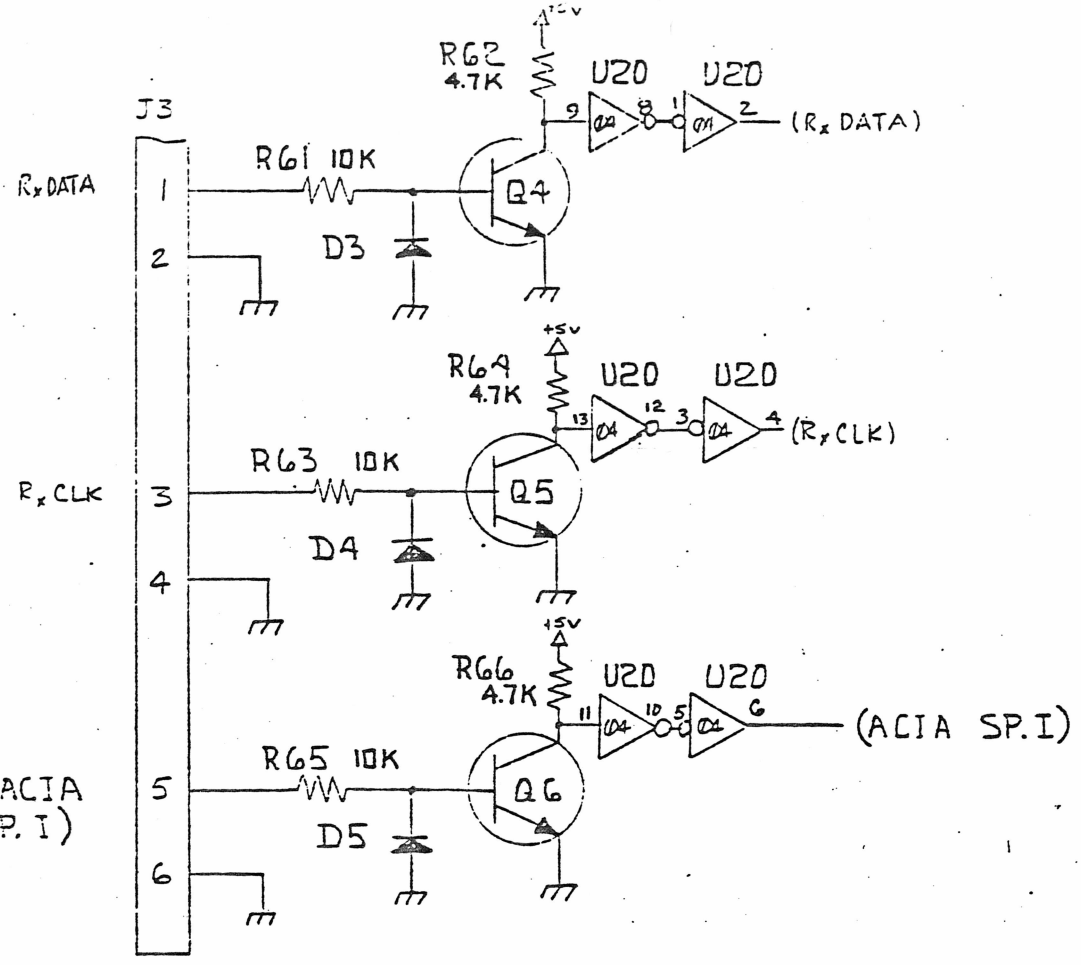


OHIO SCIENTFIC			product name/number MODEL 502 - (CONNECTORS)	
date	revision	page	status	sheet 10 of 12



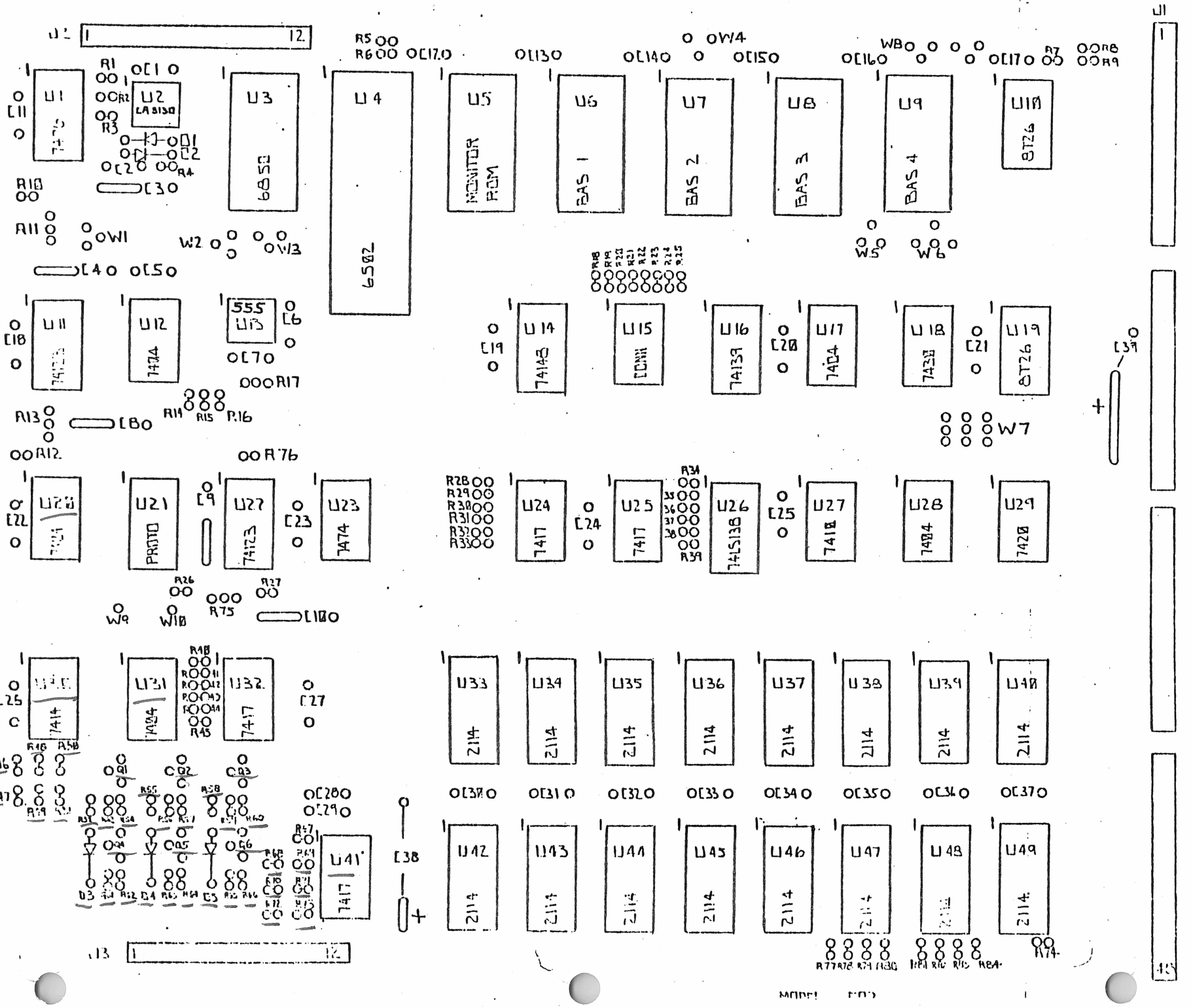
RS232 DRIVERS

OHIO SCIENTIFIC	product name/number MODEL 502 - SYNCHRO INTERFACE, RS232			
te 26 APR 1978	revision	page	status	sheet 11 of 12



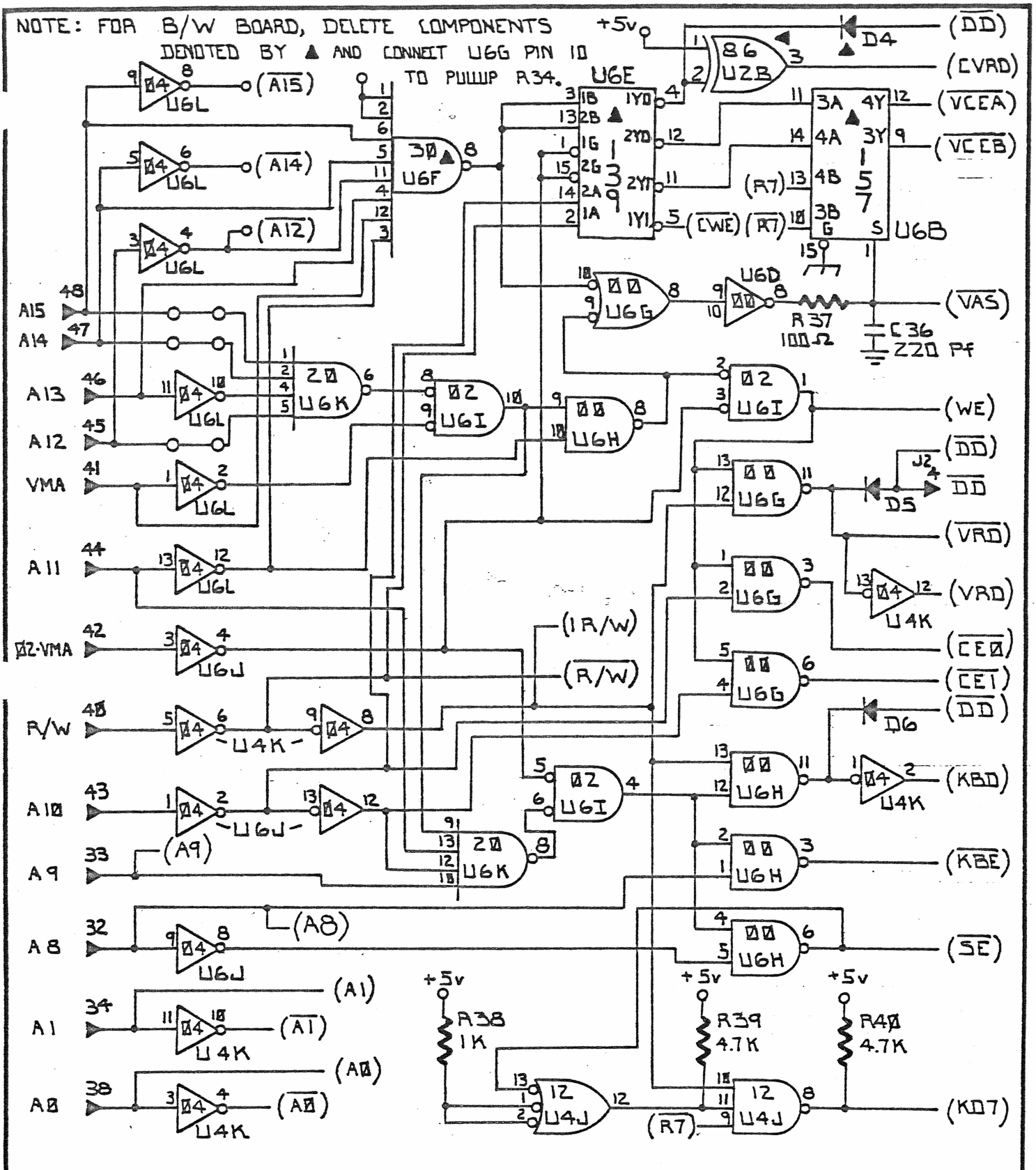
RS232 RECEIVERS

OHIO SCIENTFIC			product name/number MODEL 530 - (SYNCHRO. INTERFACE, RS232)	
date 26 APR 1978	revision	page	status	sheet 12 of 12

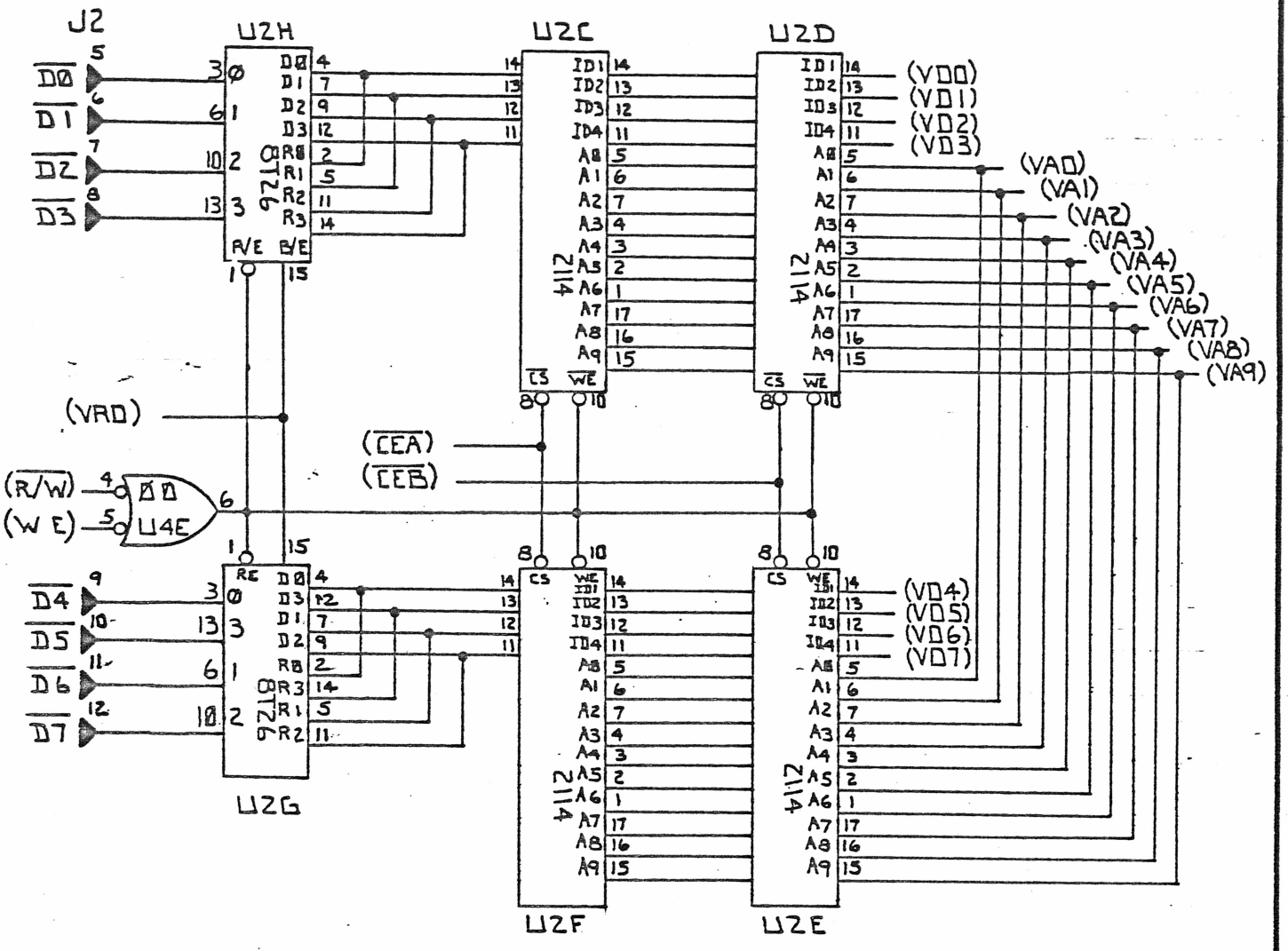

U1
U2
U3
U4
U5
U6
U7
U8
U9
U10
U11
U12
U13
U14
U15
U16
U17
U18
U19
U20
U21
U22
U23
U24
U25
U26
U27
U28
U29
U30
U31
U32
U33
U34
U35
U36
U37
U38
U39
U40
U41
U42
U43
U44
U45
U46
U47
U48
U49
MONITOR ROM
BAS 1
BAS 2
BAS 3
BAS 4
6502
6850
555
7474
7417
2114
W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
C38
C39

MODEL 540 REV B-1 SCHEMATICS

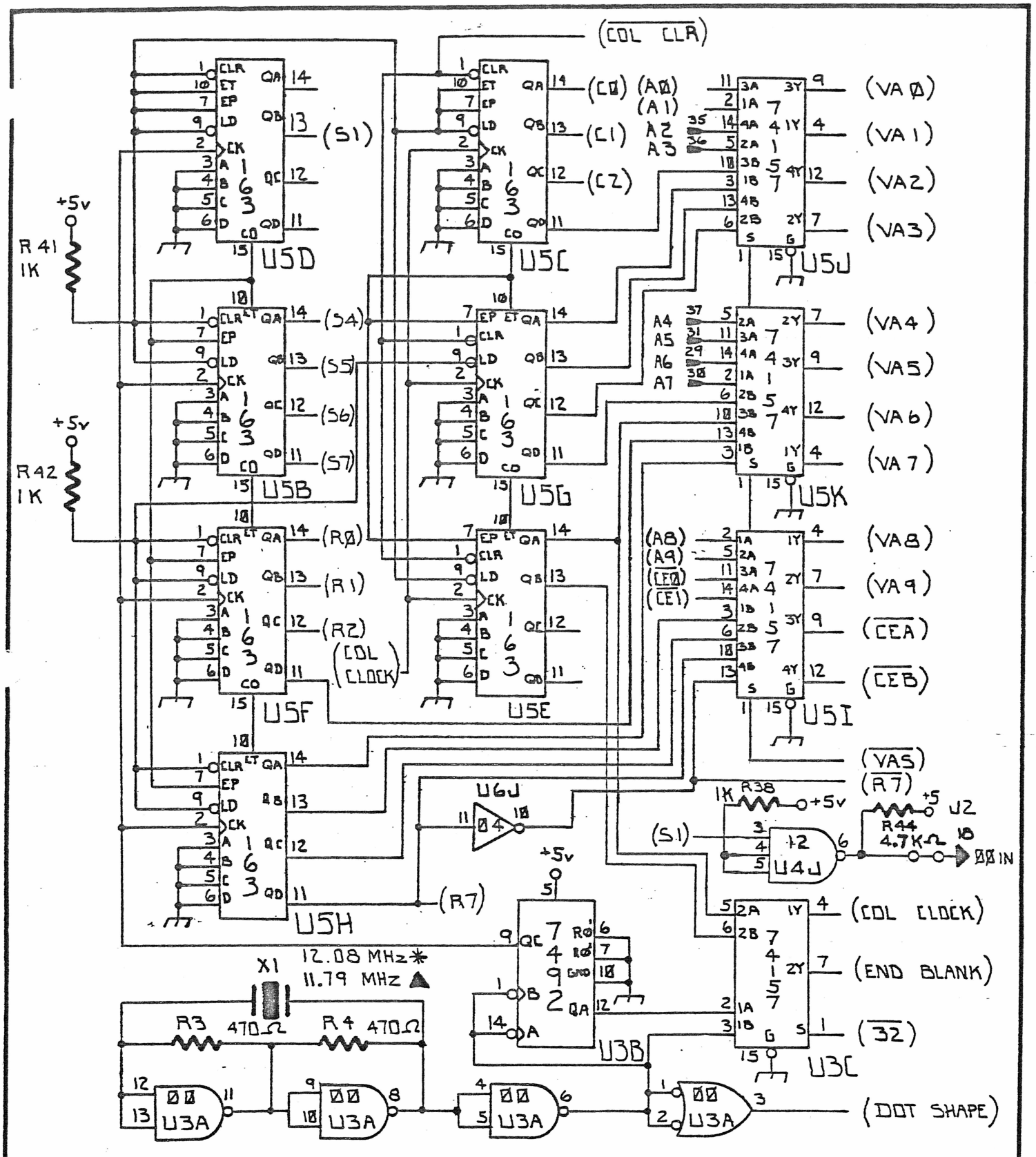
REV B-1	15 AUG 1979



OHIO SCIENTIFIC	product name/number MODEL 540 REV B-1 ADDRESS DECODER			
date 15 AUG 1979 DRAWN~ J.L.K.	revision	page	status	sheet 1 of 8



OHIO SCIENTIFIC			product name/number MODEL 540 REV B-1 BLACK + WHITE MEMORY	
date 15 AUG 1979 DRAWN ~ J.L.K.	revision	page	status	sheet 2 of 8

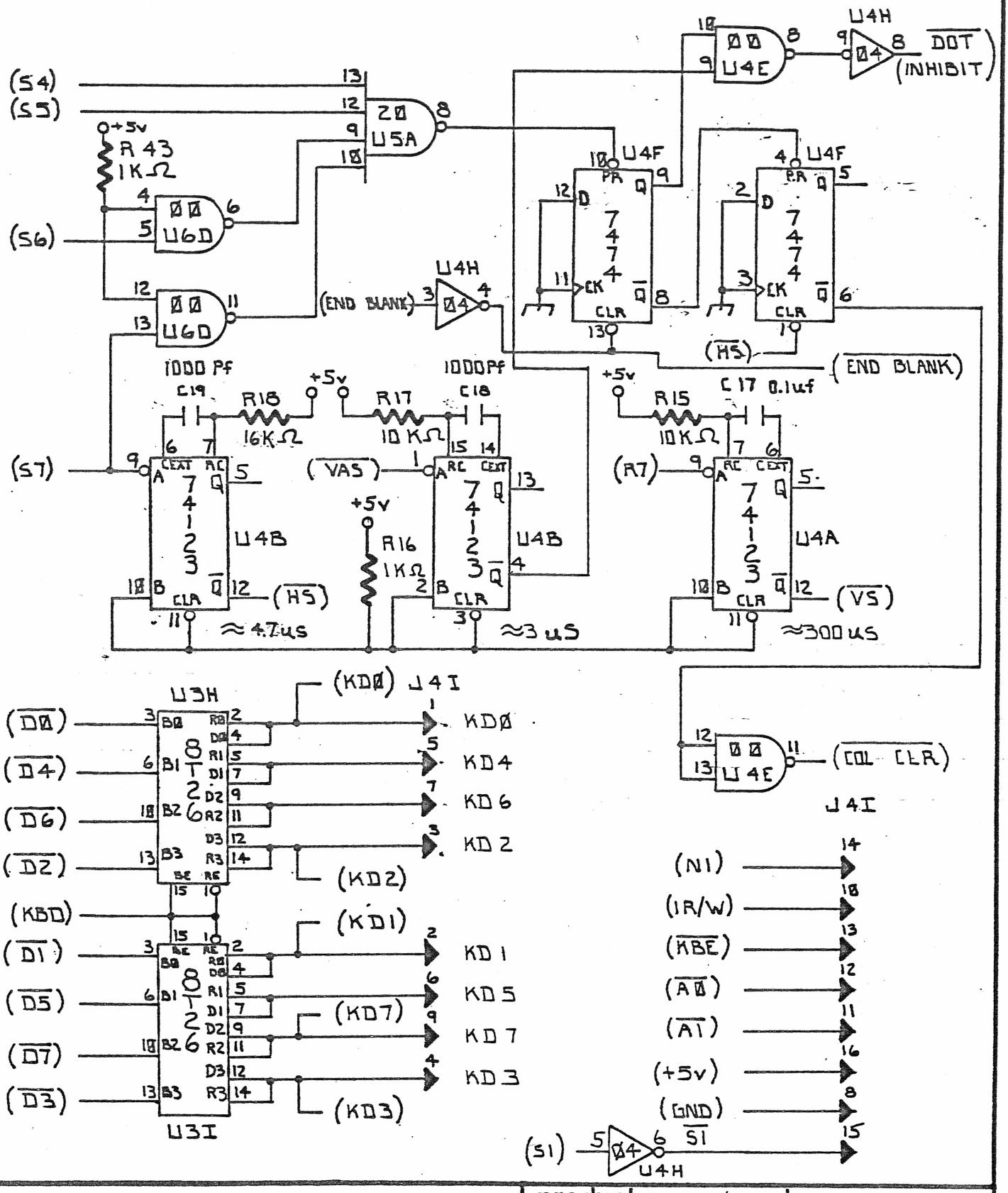


OHIO SCIENTIFIC

product name/number
MODEL 540 REV B-1
DISPLAY COUNTERS

date	revision	page	status	sheet
15 AUG. 1979 DRAWN ~ J.L.K.				3 of 8

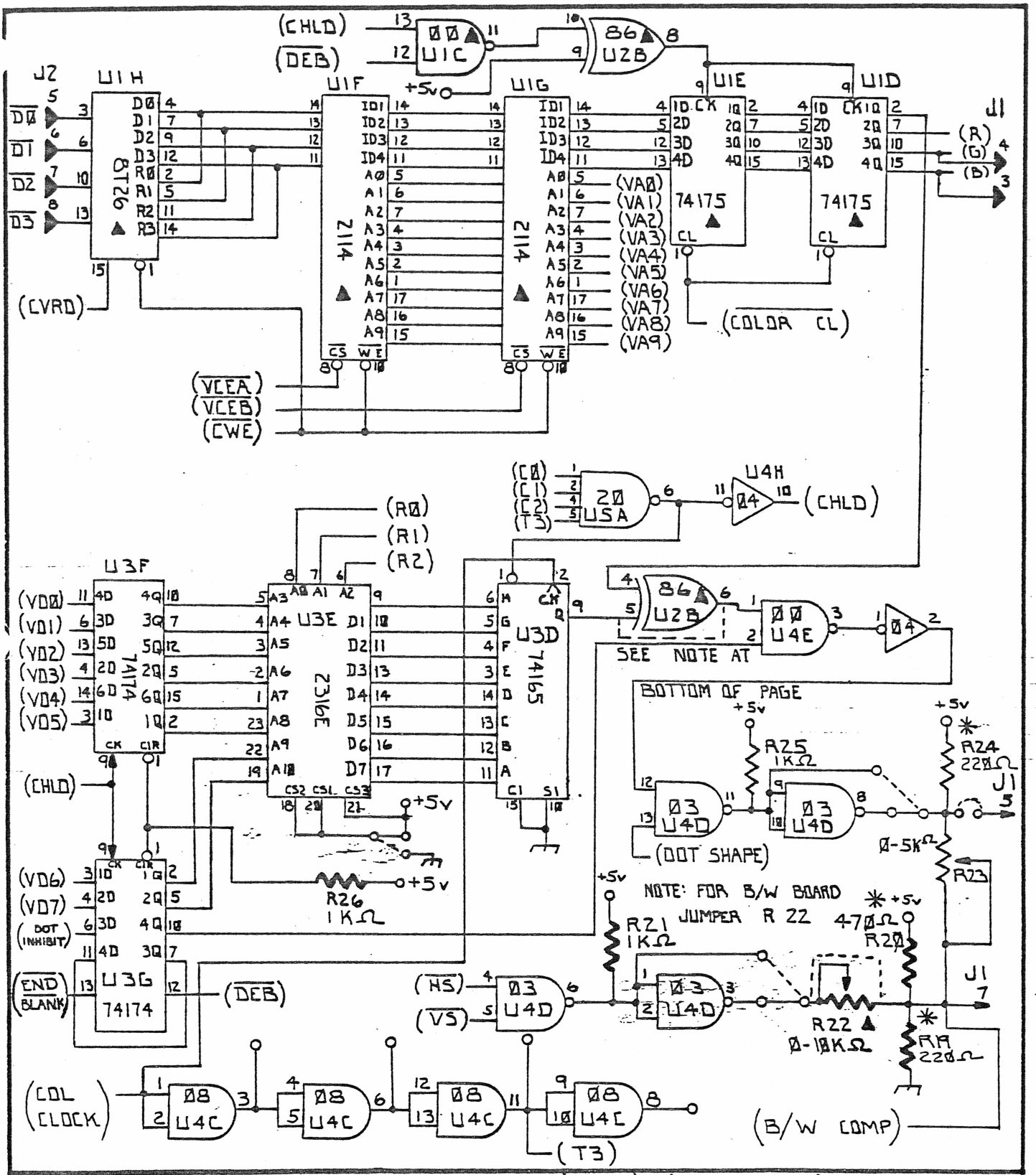
▲ — FOR B/W BOARD ONLY
* — FOR COLOR BOARD ONLY



OHIO SCIENTIFIC

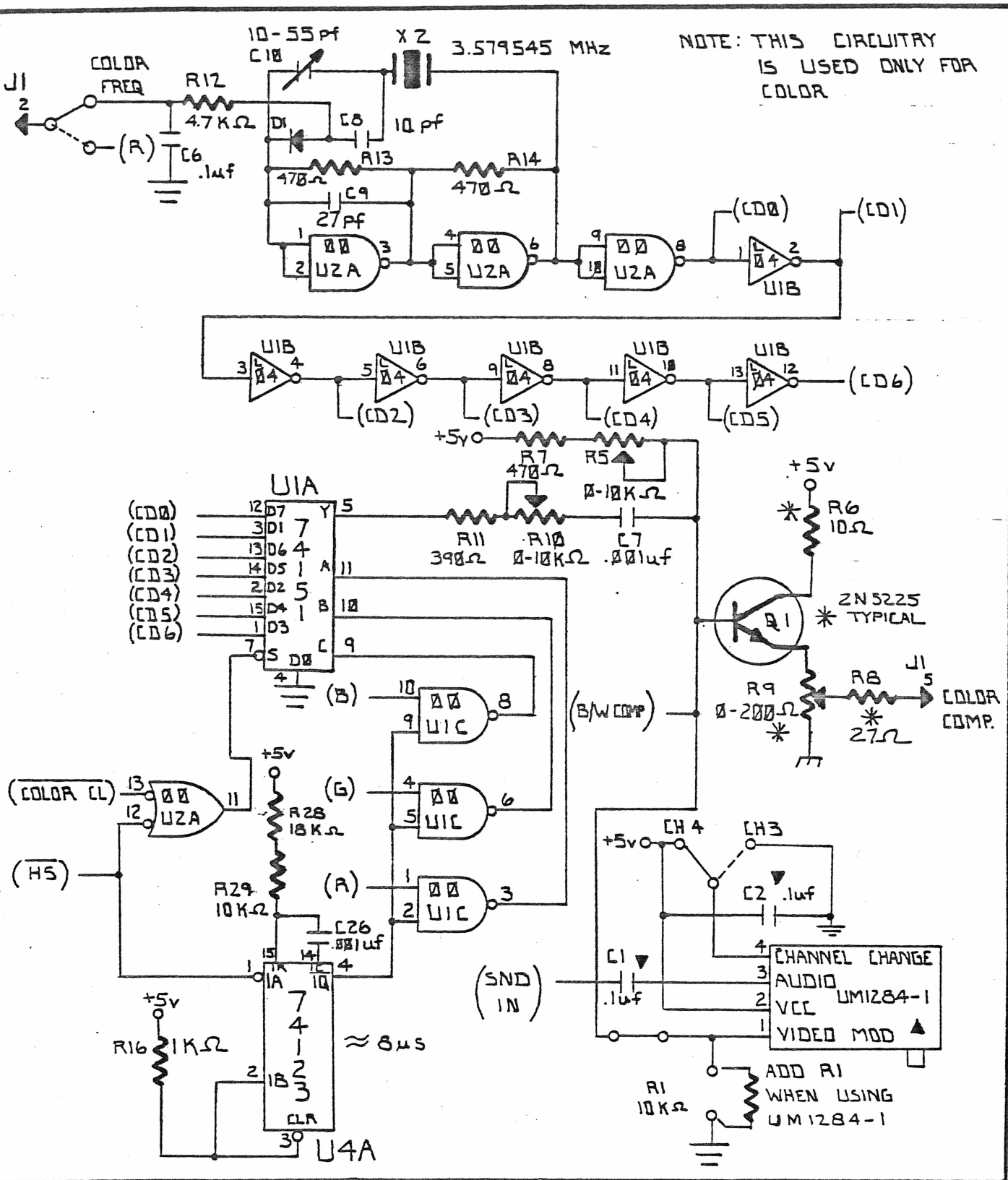
product name/number
MODEL 540 REV B-1
DISPLAY TIMING + KEYBOARD BUFFER

date	revision	page	status	sheet
15 AUG 1979 DRAWN ~ J.L.K.				4 of 8



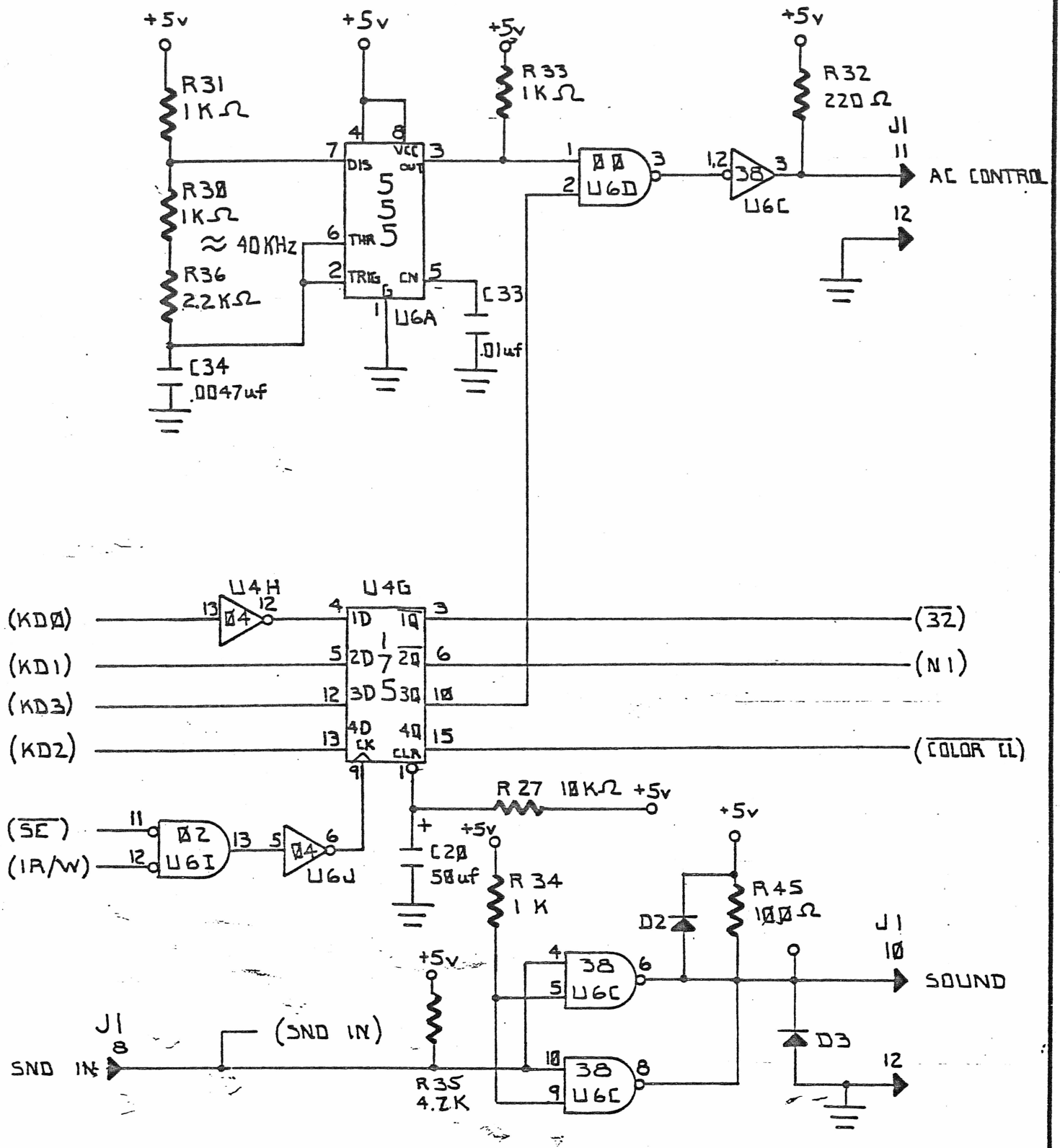
OHIO SCIENTIFIC	product name/number MODEL 540 REV B-1 COLOR MEMORY + CHARACTER OUTPUT			
date 15 AUG 1979 DRAWN ~ J.L.K.	revision	page	status	sheet 5 of 8

NOTE: FOR B/W BOARD, DELETE COMPONENTS DENOTED WITH ▲ AND JUMPER U2B PIN 5 TO PIN 6
FOR COLOR BOARD, DELETE COMPONENTS DENOTED WITH *.

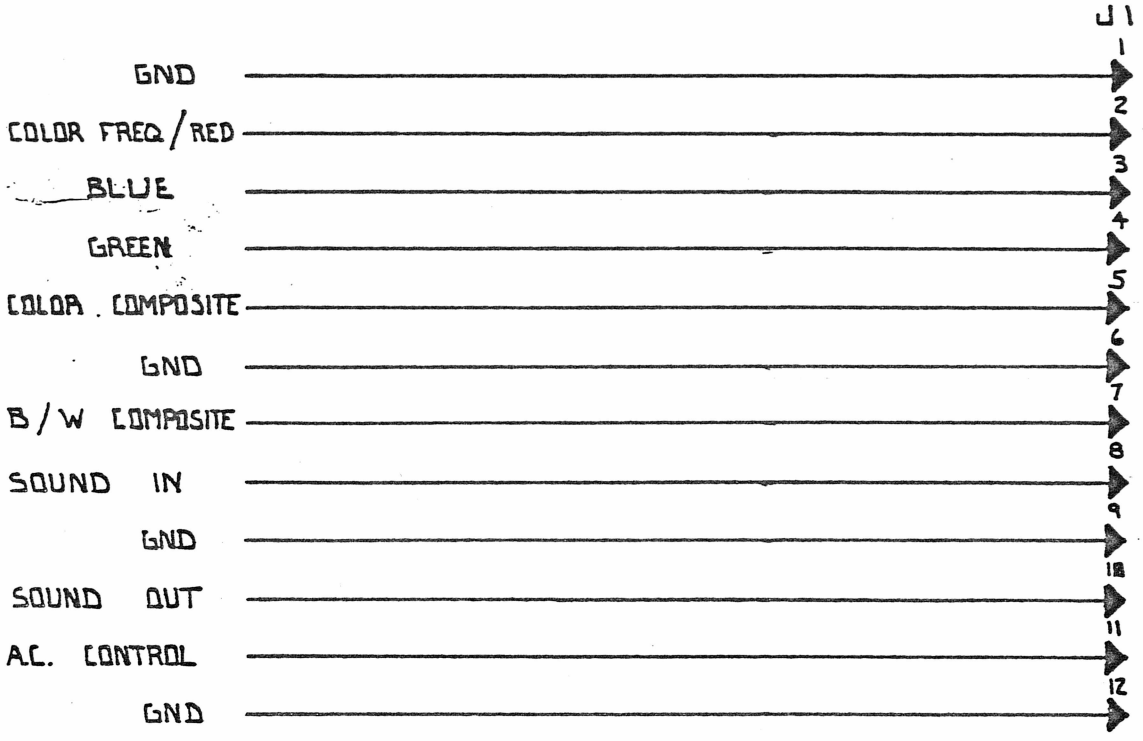


OHIO SCIENTIFIC	product name/number MODEL 540 REV B-1 COLOR OUTPUT			
date 15 AUG 1979 DRAWN ~ J.L.K.	revision	page	status	sheet 6 of 8

NOTE: DELETE COMPONENTS DENOTED WITH ▲ WHEN USING UHF CONVERTER
DELETE COMPONENTS DENOTED WITH * WHEN USING VHF MODULATER

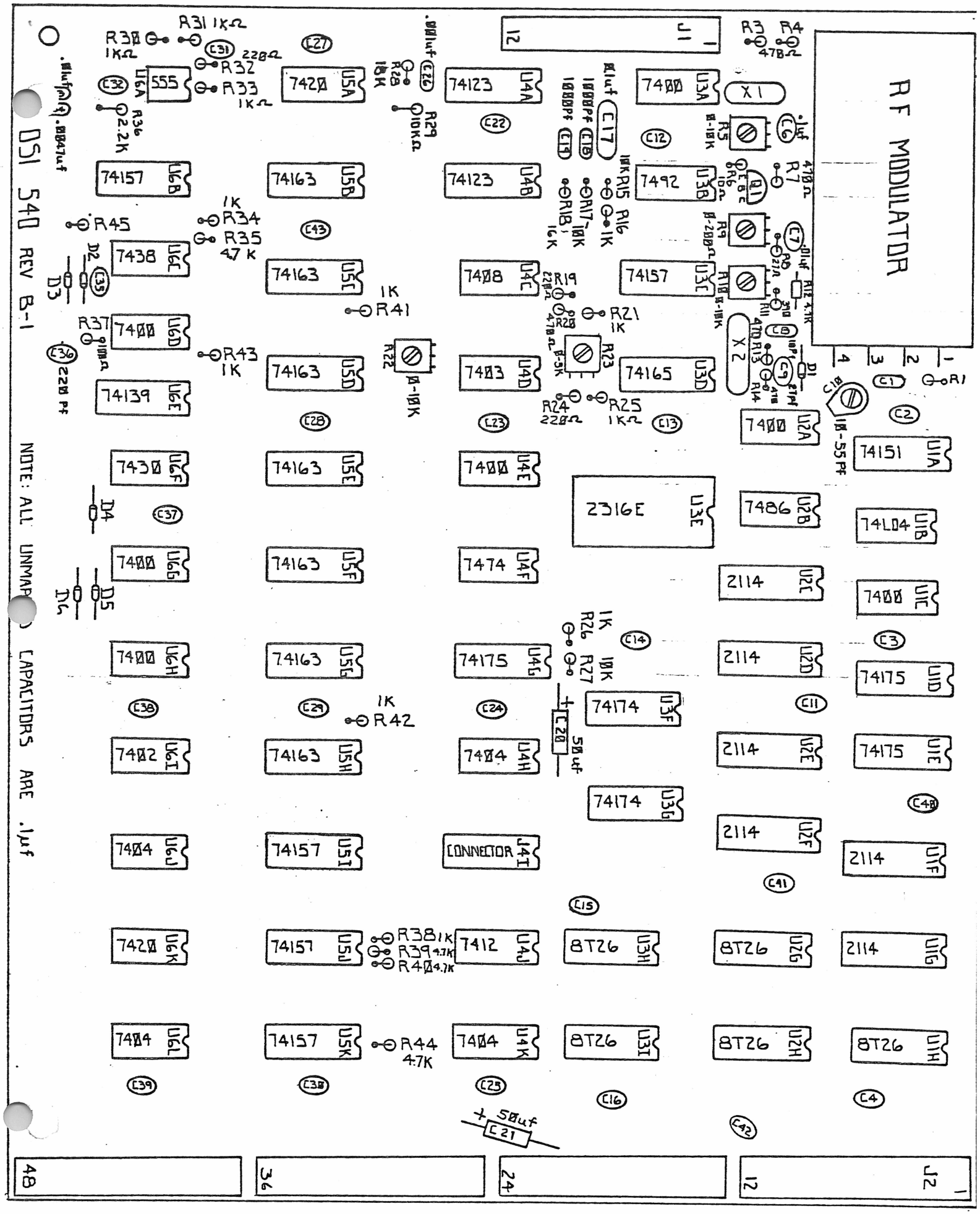


OHIO SCIENTIFIC			product name/number MODEL 540 REV B-1 A.C. CONTROL	
date 15 AUG 1979 DRAWN ~ J.L.K.	revision	page	status	sheet 7 of 8



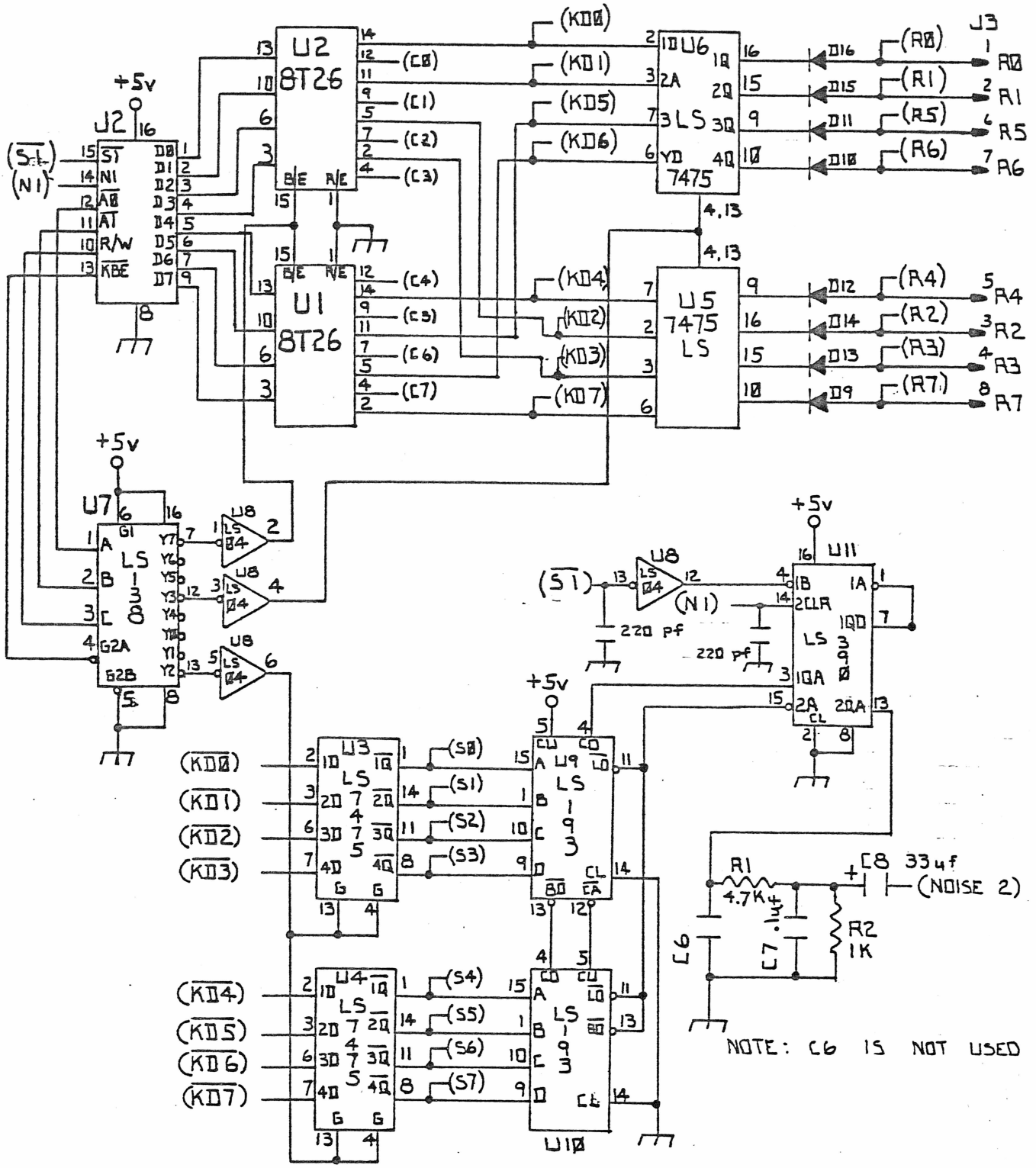
NOTE: ALL DIODES ARE TYPICAL IN914

OHIO SCIENTIFIC			product name/number MODEL 540 REV B-1 OUTPUT CONNECTOR	
date 15 AUG-1979 DRAWN ~ J.L.K.	revision	page	status	sheet 8 of 8


DSI 540 REV B-1
NOTE: ALL UNMARKED CAPACITORS ARE .1µf
RF MODULATOR
J1
J2
555
74123
7400
7420
74157
74163
7492
7438
74139
7430
74174
74175
74151
74LD4
2316E
7486
2114
8T26
74LS04
74174
74175
2114
2114
2114
2114
74157
74157
74157

MODEL 542 REV B SCHEMATICS

REV B	15 AUG 1979

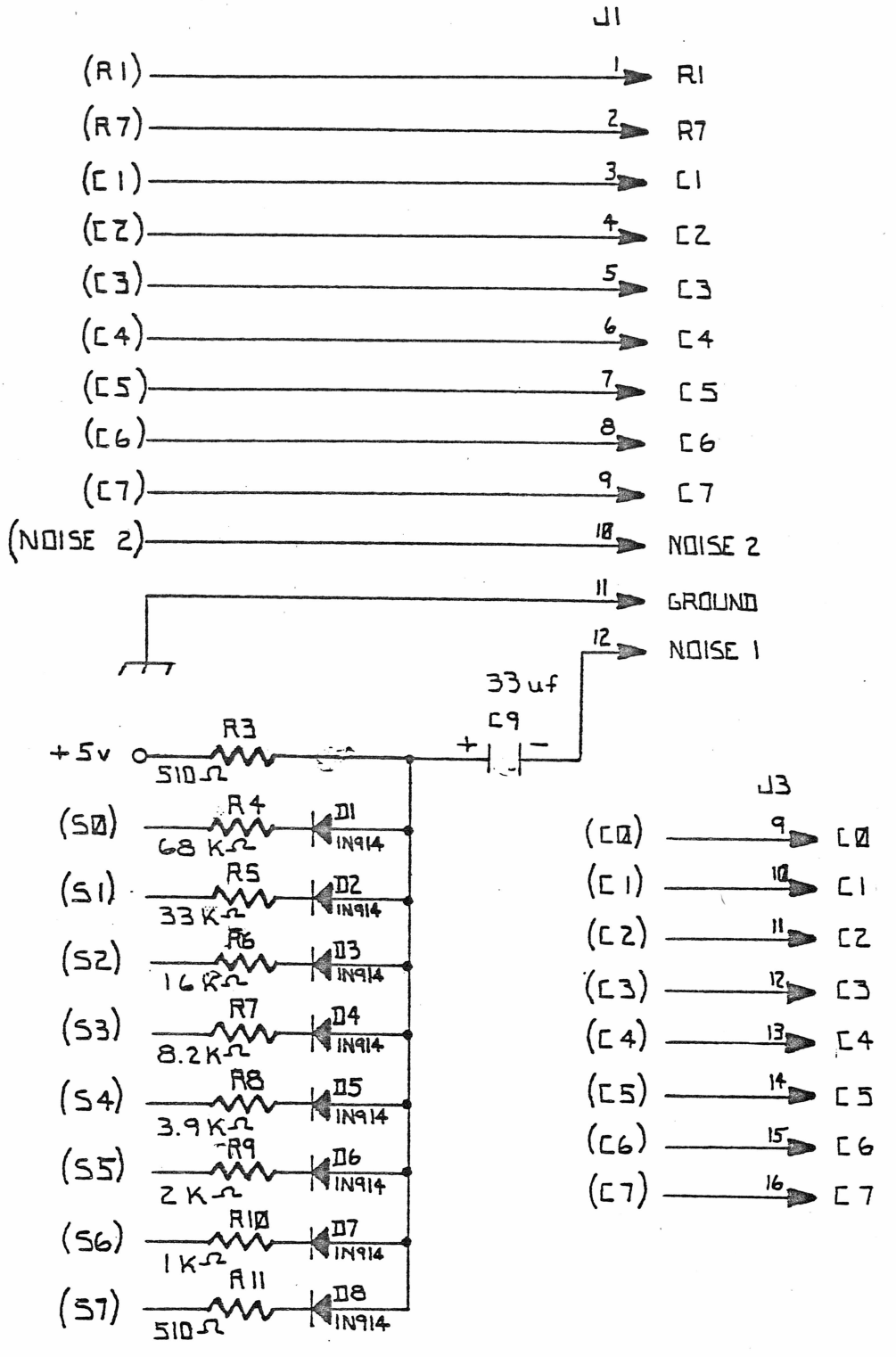


OHIO SCIENTIFIC

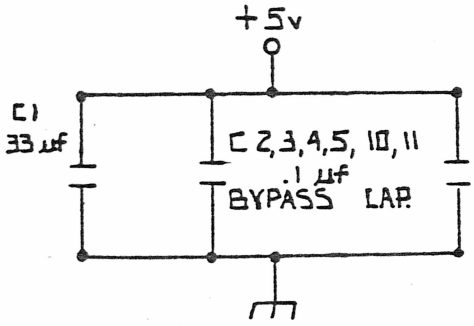
product name/number

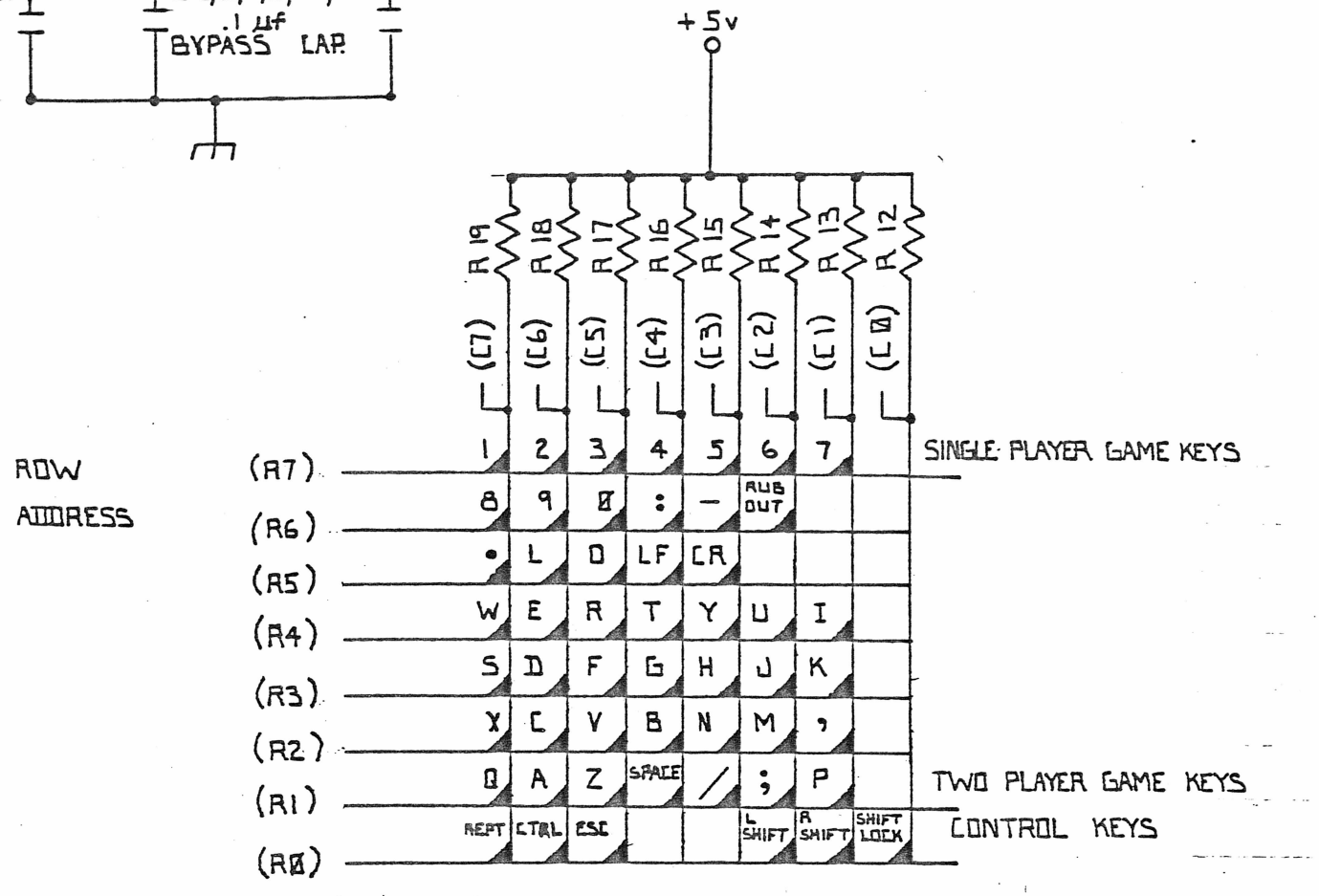
MODEL 542 POLLED KEYBOARD

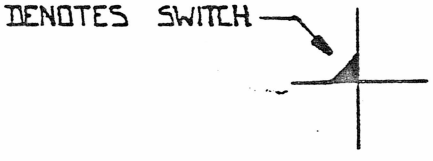
date	revision	page	status	sheet
15 AUG 1979 DRAWN ~ J.L.K.	B			1 of 3



OHIO SCIENTIFIC	product name/number MODEL 542 REV B			
date 15 AUG 1979 DRAWN ~ J.L.K.	revision B	page	status	sheet 2 of 3





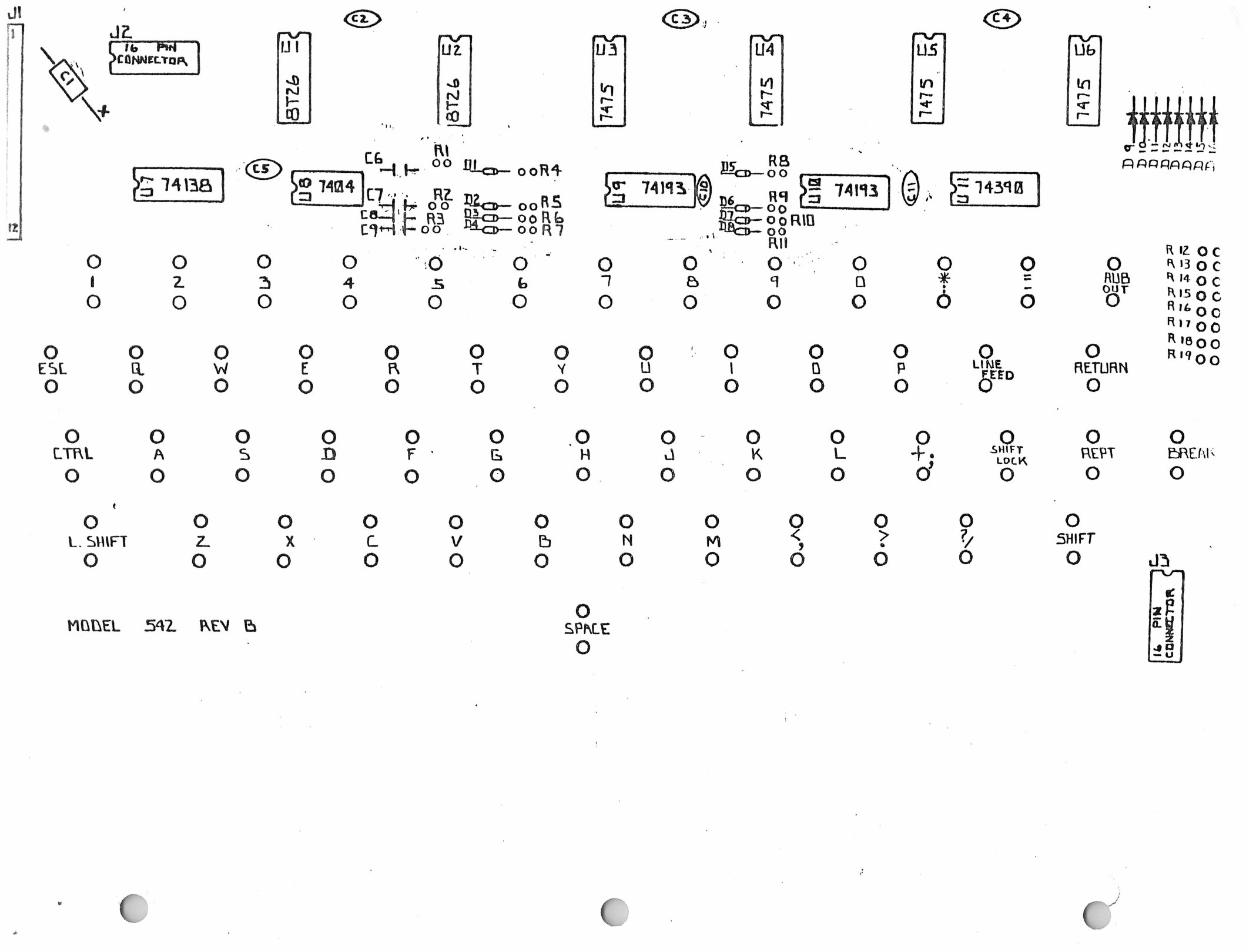


"BRK" SWITCH → TO SYSTEM RESET CIRCUITRY

NOTES:

1. STANDARD 53 KEY LAYOUT EXCEPT:
   "HERE IS" DELETED
   "RUB OUT" AT "HERE IS" LOCATION
   "SHIFT LOCK" AT "RUB OUT" LOCATION
   "SHIFT" SEPERATELY DECODED FOR "LEFT SHIFT" AND "RIGHT SHIFT."

OHIO SCIENTIFIC	product name/number: MODEL 542 KEYSWITCH LOCATIONS			
date 15 AUG 1979 DRAWN ~ J.L.K.	revision B	page	status	sheet 3 of 3


J1
J2
16 PIN CONNECTOR
C1
U1 8T26
U2 8T26
U3 7475
U4 7475
U5 7475
U6 7475
C2
C3
C4
U7 74138
C5
U8 7404
C6
C7
C8
C9
R1
R2
R3
D1
D2
D3
D4
R4
R5
R6
R7
U9 74193
C10
U10 74193
C11
U11 74390
D5
D6
D7
D8
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
1
2
3
4
5
6
7
8
9
0
-
=
RUB OUT
ESC
Q
W
E
R
T
Y
U
I
O
P
LINE FEED
RETURN
CTRL
A
S
D
F
G
H
J
K
L
SHIFT LOCK
REPT
BREAK
L. SHIFT
Z
X
C
V
B
N
M
SHIFT
SPACE
J3
16 PIN CONNECTOR
MODEL 542 REV B